ly scientific, rather than the humanitarian side of the question. And yet with this careful selection their statistics show a fifth of all the cases examined in the clinic permanently cured.

Clark, of the University of Pennsylvania, while working in the Kelly Clinic at Johns Hopkins University, as far back as 1895, advocated the radical abdominal operation, three years before Wertheim's, was encouraged by Dr. Kelly himself and after considerable experience he deducted the following conclusions:

1st. The absence of any known law concerning metastasis for the glands of the side of the greatest local involvement may be free while the parametrium or higher glands of the opposite side may show microscopic foci.

2nd. The unreliability of the microscopic appearance of a gland in determining metatasis, for a large, palpable gland may be removed painstakingly from the bifurcation of the iliacs found to be of an inflammatory character only, while an invisible lymph radicle, or a microscopic focus, immediately adjacent, may be the lodgment place for cancer cells.

3rd. The absence of any law as to what type of case gives metastasis. A very limited local process may show wide glandular metastasis, whereas the opposite may be true in extensive involvement.

4th. The peculiar distribution of metastasis in that occasionally a low group of glands may escape metastasis, whereas those above are involved.

From my own limited experience I am in thorough accord with these deductions, hence my excuse for always harboring the hope of being able to afford some degree of relief to any poor sufferer who may put her fate in my hands, whether the condition on the surface of things seems incurable or not.

Since formulating the preceding notes, a patient was admitted to my service at the City and County Hospital, seeking relief from the effects of excessive menstruation and a distressingly foul discharge. Upon the day of her admittance the interne—Dr. Silverman—removed a small section from a cauliflower-like growth involving the cervix and sent the same to the pathologist. The day following this, the patient developed a slight rise in temperature. This slight added toxemia to an already profound anemia was sufficient to interfere with the proper action of the cells of her brain to such an extent that she became imbued with the idea that she had been operated upon and was well, so it was with difficulty that I could examine her at all. Indeed, I was finally compelled to place her on the table by main force and thoroughly cauterize the growth of the vagina and cervix. After this she was so decidedly improved in every particular that she graciously submitted to several repetitions of the same treatment until she had finally reached such a physical condition that I had determined to do the radical operation, when she suddenly determined to leave the country for her home in Germany and left the hospital before I could persuade her to submit to such a radical piece of work.

This was one of those rapidly growing malignant involvements without giving rise to any pain at all. Indeed, it is only too sad that these poor unfortunate beings do not suffer severely with pain right in the beginning of the malignancy, for if such were the case they would be driven to seek relief sufficiently early to make one reasonably certain in holding out to them the reasonable promise of permanent cure.

THE GREEN OPERATING ROOM AT ST. LUKE'S HOSPITAL.

By HARRY M. SHERMAN, A. M., M. D.,
San Francisco Polyclinic.

The difficulty I have had in seeing into the mouth of a small child to properly trim and suture the soft palate and uvula, in cases of cleft palate, led me, some ten years ago, to use black cloths around the mouth instead of the ordinary white toweling. With the white environment, the hollow of the mouth is in the deepest shadow and cannot be comfortably seen, unless it be specially and over illuminated, as by the wearing of a headlight by the operator. With the black environment, however, the mouth is in the high light, not in the shadow, the pupils of the operator are not dominated by the light reflected from the white towels, and ordinarily bright daylight is ample illumination for the work in the back of the mouth.

The discomfort I have had in the present-day white operating rooms led me to suggest that we have dark floors and wainscots in these rooms, so that the operator who looks up from a wound shall not encounter a glare of light and find his eyes useless for a moment, as he looks back into the less well illuminated wound. The color scheme, it seemed to me, should start from the red of the blood and of the tissues, therefore I advised that green, the complementary color to red, should be chosen for the color of the floor and wainscot. The particular shade of green to be selected was that which was complementary to hemoglobin, and it was found to be the green of the spinach leaf. Incidentally it may be said that the iron in the chlorophyl of spinach is said to be in the same chemical combination as is the iron in hemoglobin, but I know nothing of the value of this, in making spinach green complementary to hemoglobin red.

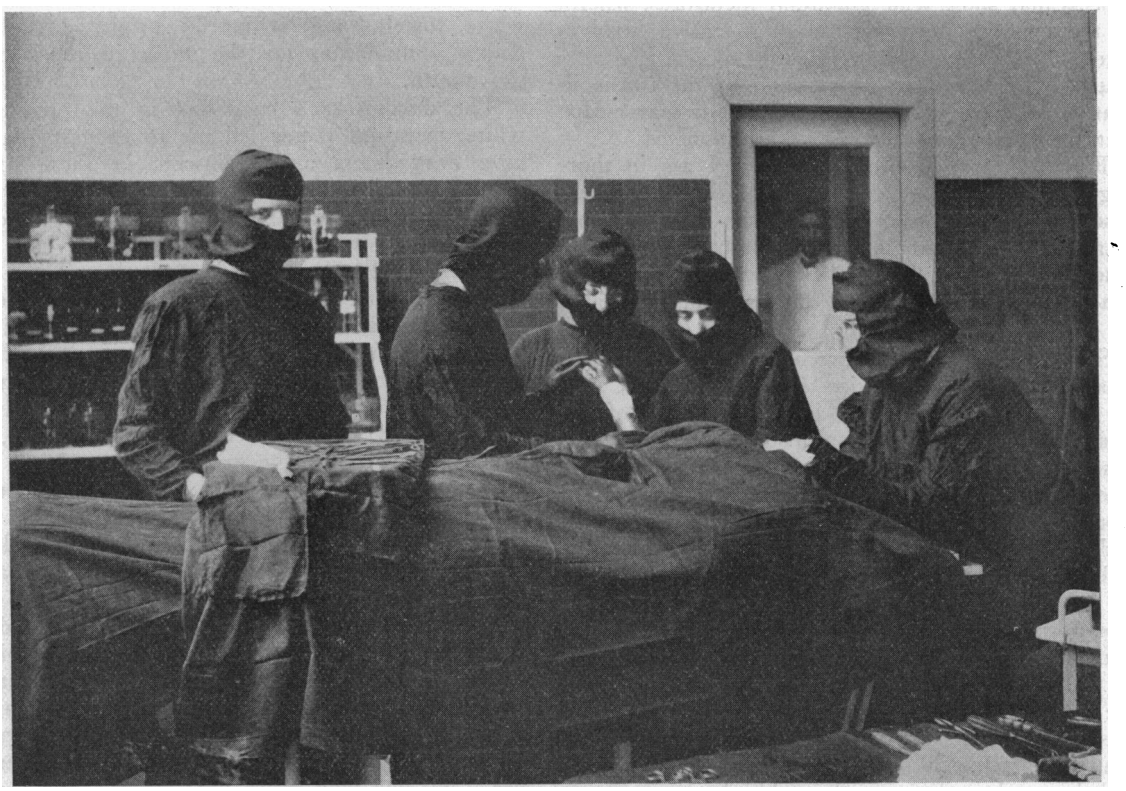
A room painted in this way, the floor and the walls for six feet from the floor, a bright spinach green, and all above a glazed white, was matched for use against a room painted a glazed white—floor, walls and ceilings—in the little operating pavilion built at St. Luke's Hospital just after the fire. No one who could get into the green room to do an operation ever went into the white room, and after some months of this experience the point was accepted as settled sufficiently to warrant the innovation of a room similarly colored in the operating suite in the new hospital. Here, however, we could not get in tiles as close an approximation to spinach green as we could in paint; the tile for the floor had to be duller and darker and that for the wall darker, but the two shades harmonize, and answer the purpose perfectly of pre-

venting the bright daylight from being reflected upward from walls and floors into the eyes.

Above the level of the six-foot green wainscot is white encaustic tiling to the ceiling, and the ceiling itself is a bright buff. This arrangement imitates fairly well the optical environment out in the fields or among low bushes, where the ground of the surroundings, to above the level of the eyes, is green, and the sky overhead is full of white daylight. This again is the optical condition for which the eye was originally adapted by natural selection, and it seems only right to reproduce the condition for the eye when it is to be relied upon for quick and accurate work; while the conditions of greatest eye-strain—the dead white and glare of snow on ground and bushes—is the optical condition reproduced by the white rooms and the white furnishings.

The green room is lighted by a window which gives us a northern light, and it reaches from about three feet above the floor up to the high ceiling. At first this window was glazed with ground glass, but it was at once seen that the room would bear much more light than the ground glass permitted, for the excess of light, the useless light which fell upon the floor and the lower part of the walls and could not be reflected thence on to the operating field, but could be reflected from a white floor and white wainscot in the eyes of the operator, was all absorbed by the green floor and wainscot. Therefore, the ground glass was taken out and transparent glass put in, giving a distinctly brighter illumination of the operating field. In working with this it was soon noticed that the light reflected into the operator's eyes by the white sheets and towelings was as dazzling and as interfering as was that reflected from the floor, and so the same color scheme was followed out, and green toweling and green sheets of galatea were provided. The color in these, however, did not stand the superheated steam in the sterilization. They became a dingy gray. I then decided to surround the whole operation field with black, as giving a surface from which no light whatever could be reflected, using it around all wounds, as I had used it around the mouth in cleft-palate operations and around the vagina in operations there. I not only had sheets and towelings of black, but I had black gowns made, and the coverings for the instrument tables were all of black, and I found that they were exceedingly satisfactory. The only objection I have heard urged against them was the superstitious fear that people coming up for operation would see this sombre accoutrement and consider it a color of bad omen. This has proved to be a groundless fear, for patients who have had work done upon them under local anesthesia have expressed no objection to the black dress of the operator, nurses and room.

In the new hospital, as in the old operating pavilion, there is a very decided preference among operators for this green room, as against the other operating rooms, which are finished in the conventional encaustic tiling; and those operators who have taken advantage of the whole equipment, and have used the black table-coverings, towelings and sheets, and the black gowns, have appreciated the improved optical conditions which they gave, for



GREEN OPERATING ROOM

the eye was not compelled all the while to receive light rays from every direction when the only rays it wished to receive or needed were those that came from the wound itself. Under ordinary conditions, the eye might be considered as trying to keep out, by pupil contraction, all the extraneous light, and at the same time trying to let in, by pupil dilation, all it really wished to get from the wound; all of which was a definite over-strain of the accommodative and visual capacities of the eye, which would conduce certainly to nerve-fatigue and consequently to general fatigue. Indeed, it has not been uncommon in this and other hospitals to hear nurses who had to spend a good part of the day at their duties in the operating room, complain of the effects of the brilliant white environment.

I think we should have long ago learned this lesson in optics from our co-workers in the laboratories, for no one ever saw in a laboratory where the microscope was to be used, white tables, benches and shelving. On the contrary, these are stained a dead black; and in this connection it may be mentioned that some years ago Dr. George M. Gould, then of Philadelphia, suggested that newspapers should be printed in white letters on a black ground, for in the present printed page, with black letters on a white ground, we see the white ground but not the black letters, and we read really from the shadows of these letters, cast on the retina. On a black page with white letters we would see the letters and not the page, and while the effect, so far as understanding was concerned, would not be different, in the one we would be conserving eye-energy, whereas in the other we would be and are overworking the eye unnecessarily. The eye is a long-suffering organ, and we are conventional people, resistant to innovations, but whoever takes the trouble to study, either theoretically or practically, fatigue in its relation to efficiency, will learn that the conservation of energy, even in such matters as saving eye-work, where that is possible, is a valuable consideration, and those of us who have long and difficult operative procedures to do will find that this conservation may easily be a deciding factor in success or failure of fine manipulations.

We have tried to test light efficiency in the two kinds of rooms by a test-card such as is used by oculists, put into the bottom of a pasteboard box, which was lined with black. We found that it could be read, down to the smallest type, in either room, but it was plain that it was much more comfortable to read it in the green room, and that probably is the measure of the room's value—that you can work in it with much greater comfort than you could in a room where the optical conditions were more trying. The acme of discomfort would be, I should imagine, what I once saw in an Eastern hospital, where the operator was working in a brilliantly lighted, dead white room, and had to wear an electric headlight to over-illuminate his field, in order to see in spite of the glare. In the same room I provided myself with yellow spectacles to put on to protect myself from the discomfort of the light.

BLINDNESS FOLLOWING INJURIES TO THE BACK OF THE HEAD.

By L. NEWMARK, M. D., San Francisco Polyclinic.

Given a patient who has sustained an injury to the back of his head and is found to be deprived of his power of vision without showing any ocular changes: the physician will find in the following observations what he may expect in regard to the restoration of sight:

There is on record [1] the case of a boy, aged 12 years, who one morning at a quarter past eleven o'clock was run over by an automobile. He was immediately taken to a near-by hospital, where he revived after very brief unconsciousness and loudly lamented that he could not see. Between lambdion and external occipital protuberance there was a laceration, the periosteum was separated from the bone, but there was no fracture. There was total amaurosis, all sensibility to light was absent. The pupils, a little more than middling wide, reacted to light, but very sluggishly. The backgrounds were normal. By 2 p. m. he could already perceive large white objects, at 6 p. m. he could count fingers at a short distance. There was now found a right homonymous hemianopsia, the dividing line almost reaching the fixing point. Pupillary reaction had become prompt. There was an indication of amnesic aphasia. On the day following the accident the visual fields had extended toward the right, and in another day they had become normal. There was no diminution of visual acuity.

This was a very transient blindness. The boy's perturbation might have suggested traumatic hysteria, but the hemianopsia would seem to disprove that. It looks rather as if the visual centers in both occipital lobes had been affected, the right hemianopsia remaining for a while after the right occipital cortex had recovered. We will agree with the author in assuming a commotio cerebri, for the restoration of vision was too rapid for a hemorrhage.

In the following case a bilateral occipital hemorrhage appears to explain the blindness which ensued upon the trauma to the skull:

F. M., a youth of 21, was engaged on January 15, 1903, in a prizefight, which was terminated by a blow upon his jaw. He was thrown with great force upon the back of his head and the impact was so violent that it drew from the experienced referee the exclamation that it would prove fatal.

When I first saw him, eleven days afterward, there were the signs of a contusion on his occiput, but the surgeon had not discovered any fracture of the skull. The patient was passing urine and feces into the bed, and a decubitus was forming on the sacrum, but he was not unconscious, for, although he generally lay motionless, with his eyes closed, he could be roused by persistent calling, and would then give short, pertinent answers.

It could be made out that there was a reduction of motor power in the right extremities, but not in the face or tongue, and of sensibility throughout the right side, including astereognosis of the right hand; but the knee-jerks, heel-reflexes, and the reflexes of the upper limb were not livelier on the right than on the left side. There was a distinct Babinski extension sign in both feet. Hearing with the right ear was evidently affected, for he did not recognize the presence of a watch even

1. Camill Hirsch. Ueber passagere Blindheit durch Commotio cerebri. Deutsche Medizinische Wochenschrift, 1910, page 1436.